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| 10/050,600 | 01/18/2002 | Yoshitaka Fujita | P14979-A | 4645 |

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| EXAMINER | |
|---|---|
| RENNER, BRANDON M | |

| ART UNIT | PAPER NUMBER |
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| 2419 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/050,600 | FUJITA, YOSHITAKA | |
| | Examiner | Art Unit | |
| | BRANDON RENNER | 2419 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *24 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *3-5,8-16 and 23-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-16 and 23-27* is/are allowed.

6)☐ Claim(s) *3-5,8-10,28 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/24/2008 has been entered.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Gelman et al. "Gelman" US 6,493,348.

Regarding claims 3 and 8, Gelman discloses a demultiplexing method of receiving a multiplexed signal obtained by multiplexing a plurality of communication signals from a multiplexed signal transmitting section, demultiplexing the multiplexed

signal into communication signals, and transmitting the demultiplexed communication signals to a communication signal receiving section, the method comprising:

adding, to each of the plurality of communication signals (packets traverse the network from a source to a destination hop by hop. The routers provide various routing functions and uses routing tables which have pre-assigned identification for where the packet is to be forwarded; Column 2 Lines8-25), an identification address preassigned to a predetermined signal identifying section through which a communication signal passes in a multiplexing system, including the multiplexed signal transmitting section and the communication signal receiving section, and outputting each of the communication signals, extracting the identification address from each of the output signals, and demultiplexing the multiplexed signal for each of the communication signals on the basis of the extracted identification address (signals enter the system at the IP backbone routers (24). MAC layer addresses are assigned and used as identification addresses for each signal which is later demultiplexed at the DSLAM / DSL access router to reach the appropriate destination, see Figures 1 and 3 and Column 2 Lines 8-25. Thus, the DSLAM effectively extracts the identification addresses from the packets in order to properly demultiplex the packets and sent them to the appropriate destination device.

**Claims 5 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson US 6,765,910.**

Regarding claims 5 and 10, Johnson discloses demultiplexing a multiplexed signal obtained by multiplexing a plurality of packets into packets, comprising:

extracting an IP address from each packet in the received multiplexed signal for each of the plurality of packets, the IP address being preassigned to a predetermined signal and demultiplexing the multiplexed signal into PPP packets on the basis of the extracted IP address (switch/router (30) provides a bridge for PPP streams to pass signals to the subscriber devices. The switch/router examines the contents of the PPP stream and selectively separates certain packets out of the stream when it detects the packets are intended for a server and forwards them only to the intended servers; Column 8 Lines 22-30. In other words, the PPP packet stream is analyzed based on the IP address which is extracted from the packet headers and the packets are forwarded based on this extracted information. The routing decisions are made based on IP addresses which are imbedded in the packet headers for the packets being communicated over the network; Column 8 Lines 31-40).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 9, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelman in view of Johnson.

Regarding claims 4 and 9, Gelman discloses the identification address includes a MAC address; Column 2 Lines 20-25. Gelman does not explicitly disclose the communication signal includes a PPP packet created for each IP subscriber. However, Johnson discloses packets arriving at the router from a server which are formatted into PPP format and inserted into PPP streams; Column 8 Lines 30-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include PPP packet streams.

One would be motivated to make the modification such that a direct communication link could be setup between a source and destination device.

Regarding claim 28, Gelman discloses a demultiplexing method of receiving a multiplexed signal obtained by multiplexing a plurality of communication signals from a multiplexed signal transmitting section, demultiplexing the multiplexed signal into communication signals, and transmitting the demultiplexed communication signals to a communication signal receiving section, the method comprising:

adding, to each of the plurality of communication signals (packets traverse the network from a source to a destination hop by hop. The routers provide various routing functions and uses routing tables which have pre-assigned identification for where the packet is to be forwarded; Column 2 Lines8-25), an identification address preassigned to a predetermined signal identifying section through which a communication signal passes in a multiplexing system, including the multiplexed signal transmitting section

and the communication signal receiving section, and outputting each of the communication signals, extracting the identification address from each of the output signals, and demultiplexing the multiplexed signal for each of the communication signals on the basis of the extracted identification address (signals enter the system at the IP backbone routers (24). MAC layer addresses are assigned and used as identification addresses for each signal which is later demultiplexed at the DSLAM / DSL access router to reach the appropriate destination, see Figures 1 and 3 and Column 2 Lines 8-25. Thus, the DSLAM effectively extracts the identification addresses from the packets in order to properly demultiplex the packets and sent them to the appropriate destination device.

Gelman does not explicitly disclose the communication signal includes a PPP packet created for each IP subscriber. However, Johnson discloses packets arriving at the router from a server which are formatted into PPP format and inserted into PPP streams; Column 8 Lines 30-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include PPP packet streams.

One would be motivated to make the modification such that a direct communication link could be setup between a source and destination device.

Regarding claim 29, Gelman discloses converting the demultiplexed signal into a DSL signal and transmitting the signal to a subscriber (signals are demultiplexed by an XDSL access router and forwarded on to their respective destination terminals (i.e.

subscriber apparatus); Column 6 Lines 26-46, see also Figures 3 and 4. Thus, the XDSL access router effectively converts the signals into proper format to provide DSL servers to the subscribers).

***Response to Arguments***

Applicant's arguments filed 11/24/2008 have been fully considered but they are not persuasive.

Regarding claims 3 and 8, Applicant argues the prior art of record does not teach or fairly suggest adding, to each of the communication signals an identification address preassigned to a predetermined signal identifying section.

The Examiner respectfully disagrees with Applicant's arguments. Gelman teaches a conventional internet system. Further, a Web server (28) communicates with terminals (15) on a LAN. IP routers are assigned to the web server and to the terminals. Data packets are passed through the system. A link must be established between the IP router through the switch and ultimately to the LAN where the terminal (15) resides. The data is passed through a DSLAM (20); Column 4 Lines 18-39. Thus, as the Final Rejection states, Gelman discloses routing tables which contain preassigned addresses that are used to determine the various routes based on the address identified in the received packet. The data being sent must go hop by hop through the system and the IP router assigns these address identifiers to determine where the packet will be sent. As Gelman further discloses, if the Web server and terminal it wishes to communicate with were assigned different IP routers, more passes

would be necessary; Column 4 Lines 32-39. Further, IP provides routing functions for a packet from node to node (hop by hop) until the packet arrives at the destination using the routing tables; Column 2 Lines 20-25. Thus, Gelman does disclose adding an address identifier to the packets being sent through the system which get multiplexed/demultiplexed along the way. These packets are sent to their respective destinations based on the address information. In light of the claimed language, the rejection is maintained.

Regarding claims 5 and 10, Applicant argues the prior art of record does not teach or fairly suggest extracting an IP address from each packet in the received multiplexed signal and the IP address being preassigned.

The Examiner respectfully disagrees with Applicant's arguments. Johnson discloses a switch or router provides a bridge for PPP streams. Further the switch or router examines the contents of the stream and selectively separates out specified packets and forwards these packets to their respective destination; Column 8 Lines 22-40. Thus, the received packets are examined and the IP address (associated with the destination) is extracted from the PPP stream. As mentioned in the Final office action, routing tables are used. Routing tables assign IP addresses to data being sent through the system. Thus one would appreciate that the IP addresses being extracted by Johnson were preassigned to the data packet before they are received and examined. Thus, in light of the claimed language, the rejection is maintained.

Regarding claims 4 and 9, Applicant argues Gelman and Johnson do not teach or fairly suggest the communication signal include a PPP packet for each Internet subscriber and the address being a MAC ID.

Examiner respectfully disagrees. As the Final office action states, Gelman discloses forming the packets into MAC frames (i.e. assigning a MAC ID to the packet); Column 2 Lines 20-22 and Johnson further discloses packets arriving (i.e. received) at the switch/router are formatted into PPP format and inserted into the PPP stream and sent back to the subscriber device; Column 8 Lines 30-33. Thus for the communication stream associated with the user device (12), the packet is formatted into PPP, and thus in light of the claimed language, the rejection is maintained. The Applicant argues that nowhere in Johnson are teachings of a MAC address as recited in claim 4. However, the Examiner would like to point out Johnson was not used to disclose any teachings of a MAC address. As noted in the Final office action, Gelman is used for the teachings of a MAC address.

With regards to the newly added claims 28 and 29, the Applicant merely combined the exact limitations of Claims 3 and 5 into one independent claim, thus the combination of Gelman and Johnson properly discloses these claims.

## *Conclusion*

### *Allowable Subject Matter*

Claims 11-16 and 23-27 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON RENNER whose telephone number is (571)270-3621. The examiner can normally be reached on Monday-Thursday 7-530.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brandon Renner
Examiner, Art Unit 2419
2/12/2009

/Hassan Kizou/
Supervisory Patent Examiner, Art Unit 2419